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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/017,314	12/14/2001	Joseph M. Starita	3994648-129160	7218

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EXAMINER
TRAN, THAO T

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,314	STARITA, JOSEPH M.	
	Examiner	Art Unit	
	Thao T. Tran	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2 and 4-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2, 4-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. This is in response to the Amendment filed on April 29, 2003. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

2. Claims 2, 4-22 are currently pending in this application. Claims 5-22 have been newly added. Claims 1 and 3 have been canceled.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2 and 4-22 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims recite "a previously melted and solidified high molecular weight" and "a previously melted and solidified low molecular weight" that are not described in the specification as originally presented.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 8, 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 18 are indefinite due to the use of "virgin ..... HDPE materials". This is contradictory to claims 5 and 13 on which claims 8 and 18 depend respectively. Claims 5 and 13 recite the HDPE as previously melted and solidified.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 2, 4, 7-8, and 13-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheruvu et al. (US Pat. 6,194,520).

Cheruvu teaches a high density ethylene polymer blend and a method of preparing, the polymer blend comprising a relatively high molecular weight component homopolymer (HMW) and a relatively low molecular weight component copolymer (LMW) with a weight ratio of the HMW of at least 0.3% weight fraction or each component being about 0-15% weight percent based on the total weight of each other; the polymer blend having a density, a melt index, and an ESCR of at least about 300 hrs (see abstract; col. 3, ln. 46-53; col. 4, ln. 15-18, ln. 46; claims 5-11). The blend has a melt index whose logarithm equals the sum of the products of the weight fraction of the HMW HDPE and the logarithm of the melt index of HMW HDPE and the weight fraction of the LMW HDPE and the logarithm of the melt index of LMW HDPE. And the density of the blend equals the sum the product of the weight fraction and density of each component (see Examples and claims).

It is hereby noted that it has been within the skill in the art that the logarithm of the melt index of the product would equal the sum of the product of the weight fraction and logarithm of the melt index of each component in the product; and that the density of the product would equal the sum of the product of the weight fraction and density of each component in the product.

The polymer blend is formed into a shape (article or bottle) having a density of 956 g/cc or no higher than 958 g/cc, a melt index of 0.2 (see claims 5, 9).

Cheruvu is silent with respect to the

flexural modulus, tensile strength, and notched constant tensile load of the article being formed. However, since Cheruvu teaches the same polymer blend, it would be inherent that the article would have the same properties, such as the flexural modulus, tensile strength, and notched constant tensile load as those in the presently claimed invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 6, 9-12, 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheruvu as applied to claims 5 and 13 above.

Cheruvu is as set forth in claims 5 and 13 above and incorporated herein.

Cheruvu does not teach the HMW HDPE component to be about 50% to about 95% by weight fraction. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made, that the amount of a constituent in a composition would be a result-effective variable that would be optimized by routine experimentation, for the purpose of achieving a recognized result. See MPEP 2144.05, section IIB.

Response to Arguments

9. Applicant's arguments filed on April 29, 2003 have been fully considered but they are not persuasive.

Throughout the Remarks, Applicant points out that Cheruvu differs from the present invention in that the reference teaches a specialty blow-molding grade of high density polyethylene, whereas the present invention teaches a melt blend comprising a high molecular weight previously melted and solidified high density polyethylene component, a previously melted and solidified low molecular weight (LMW) HDPE homopolymer, and a previously

melted and solidified LMW HDPE copolymer in a ratio of each component determined by the formula as recited in the claims. However, Cheruvu does teach a blend that constitutes all these components as recited in the claims.

Furthermore, Applicant is reminded that the formulae for determining the melt index and the density of the blend has been known within the skill in the art. Although the constituents in the blend are solids, the same laws are applied as the gas laws.

Applicant further remarks that Cheruvu does not address the blending goals nor the consequent achievements of the melt blends of previously melted and solidified resins as addressed in the instant specification and claims. However, the specification as originally presented does not teach the blends as presently claimed.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

tt
July 13, 2003